

**WHAT IS CLAIMED IS:**

1. A portable electronic appliance capable of using a battery as a power source, said appliance comprising:

- 5 a reading device which reads information about the battery stored in a wireless tag provided on the battery;
- a recognition device which recognizes the information about the battery read by said reading device;
- a warning display device which displays a battery remaining energy warning;
- and
- 10 a warning generation device which generates battery remaining energy warning information according to the information recognized by said recognition device, and sends the generated information to said warning display device.

2. The portable electronic appliance according to claim 1, wherein the information about the battery includes the kind of the battery; said recognition device recognizes at  
15 least the kind of the battery; and said warning generation device generates the battery remaining energy warning information according to the recognized kind of the battery and sends the generated information to said warning display device.

3. The portable electronic appliance according to claim 2, wherein the information about the battery further includes the name of the manufacturer of the battery; said  
20 recognition device recognizes at least the kind of the battery and the manufacturer's name; and said warning generation device generates the battery remaining energy warning information according to the recognized kind of the battery and manufacturer's name and sends the generated information to said warning display device.

4. The portable electronic appliance according to claim 2, wherein the information  
25 about the battery further includes the capacity of the battery; said recognition device recognizes at least the kind of the battery and the capacity; and said warning generation device generates the battery remaining energy warning information according to the recognized kind and capacity of the battery and sends the generated information to said warning display device.

5. The portable electronic appliance according to claim 3, wherein the information about the battery further includes the capacity of the battery; said recognition device recognizes at least the kind of the battery, the manufacturer's name and the capacity; and said warning generation device generates the battery remaining energy warning information according to the recognized kind, manufacturer's name and capacity of the battery and sends the generated information to said warning display device.
6. A portable electronic appliance capable of using a battery as a power source, said appliance comprising:
  - a reading device which reads information stored in a wireless tag provided on the battery, and which is provided approximately at a center in the lengthwise direction of a lengthwise-extending place for accommodation of the battery.
7. A battery having a lengthwise-extending shape, said battery comprising a wireless tag attached to a portion of said battery approximately at a center in the lengthwise direction of said battery.
8. A battery having a lengthwise-extending shape, said battery comprising a wireless tag in the form of a band attached to a portion of said battery approximately at a center in the lengthwise direction of said battery so as to extend in the circumferential direction.
9. The battery according to claim 7, wherein said battery is an AA battery.
10. The battery according to claim 8, wherein said battery is an AA battery.
11. A battery having a lengthwise-extending shape, said battery comprising a wireless tag attached to a portion of said battery approximately at a center in the lengthwise direction of said battery, said battery being used in the portable electronic appliance according to claim 6.

12. A portable electronic appliance capable of using a battery as a power source, said appliance comprising:

a reading device which reads information about the battery stored in a wireless tag attached to the battery;

5 a recognition device which recognizes the information about the battery read by said reading device;

a power control device which controls the amount of power consumed by the portable electronic appliance; and

10 a control command generation device which sends to said power control device a power control command according to the information recognized by said recognition device.

13. The portable electronic appliance according to claim 12, wherein the information about the battery includes the kind of the battery; said recognition device recognizes at least the kind of the battery; and said control command generation device  
15 sends to said power control device a power control command according to the recognized kind of the battery.

14. The portable electronic appliance according to claim 13, wherein the information about the battery further includes the name of the manufacturer of the battery; said recognition device recognizes the manufacturer's name of the battery; and  
20 said control command generation device sends to said power control device a power control command according to the recognized manufacturer's name of the battery.

15. A portable electronic appliance capable of using a battery as a power source, said appliance comprising:

25 a reading device which reads information about the battery stored in a wireless tag attached to the battery;

a recognition device which recognizes the information about the battery read by said reading device;

a power control device which controls the amount of power consumed by the portable electronic appliance so that the amount of power is reduced; and

a control command generation device which sends to said power control device a command to perform such control that the amount of power is reduced according to the information recognized by said recognition device.

16. A portable electronic appliance capable of using a battery as a power source,  
5 said appliance comprising:

a reading device which reads information stored in a wireless tag attached to the battery, the stored information including information for identification of the battery and the kind of the battery;

a recognition device which recognizes the information read by said reading  
10 device, the read information including information for identification of the battery and the kind of the battery;

a charging device which can charge the battery in a case where the battery in said portable electronic appliance is a secondary battery;

a charging cycle storage device which stores the number of cycles of charging of  
15 the battery in said portable electronic appliance on the basis of the information for identification of the battery in a case where the battery in said portable electronic appliance is a secondary battery;

a warning display device which displays a warning about use of the battery; and

a warning generation device which makes said warning display device display  
20 information on a warning about use of the battery according to the number of charging cycles.

17. A portable electronic appliance capable of using a battery as a power source,  
said appliance comprising:

a reading device which reads information stored in a wireless tag attached to the  
25 battery, the stored information including information for identification of the battery and the kind of the battery;

a recognition device which recognizes the information read by said reading device, the read information including information for identification of the battery and the kind of the battery;

a charging device which can charge the battery in a case where the battery in said portable electronic appliance is a secondary battery;

a charging cycle storage device which stores the number of cycles of charging of the battery in said portable electronic appliance on the basis of the information for  
5 identification of the battery in a case where the battery in said portable electronic appliance is a secondary battery;

a power control device which controls the amount of power consumed in said portable electronic appliance so that the amount of power is reduced; and

a power reduction instruction device which instructs said power control device  
10 to reduce the amount of consumed power according to the number of charging cycles.

18. A portable electronic appliance capable of using a battery as a power source, said appliance comprising:

a reading device which reads information stored in a wireless tag attached to the battery, the stored information including the kind of the battery and the number of cycles  
15 of charging of the battery;

a recognition device which recognizes the information read by said reading device, the read information including the kind of the battery and the number of cycles of charging of the battery;

a charging device which can charge the battery in a case where the battery in  
20 said portable electronic appliance is a secondary battery;

a writing device which writes the number of charging cycles in said portable electronic appliance to the wireless tag;

a warning display device which displays a warning about use of the battery; and

a warning generation device which makes said warning display device display  
25 information on a warning about use of the battery according to the number of charging cycles.